UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/627,240	07/24/2003	Jeffrey P. Newton	4602/1N073US1	4178

7590 08/28/2006

DARBY & DARBY P.C.
Bert J. Lewen, Esq.
P.O. Box 5257
New York, NY 10150-5257

EXAMINER	
DOUGLAS, JOHN CHRISTOPHER	

ART UNIT	PAPER NUMBER
1764	

DATE MAILED: 08/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	**Application No.** 10/627,240	**Applicant(s)** NEWTON, JEFFREY P.	
	Examiner John C. Douglas	**Art Unit** 1764	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 June 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-100* is/are pending in the application.

4a) Of the above claim(s) *1-51* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *52-65,67-87,89-91,93-95 and 97-99* is/are rejected.

7)☒ Claim(s) *66,88,92,96 and 100* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *10/31/2003*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Examiner acknowledges the reply filed on 6/15/2006 containing the cancellation of claims 1-51, the addition of the new claims 52-100.

2. Examiner acknowledges the response to the restriction requirement. The response containing the election of Group II with traverse.

3. The restriction requirement mailed on 3/15/2006 is withdrawn. Newly added claims 52-100 are examined on the merits.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claims 52-58 and 69-75 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hettinger, Jr. (US 4450241) in view of Senes (US 3644557), Leftin (US 3403108), and Schriesheim (US 2956096).

7. With respect to claims 52-58, Hettinger discloses a catalyst composition for converting heavy hydrocarbons. The catalyst composition contains catalyst particles under 200 microns (see Koeppel (US 4300324), which discloses that particles with a Blaine of 3000 have particle sizes of less than 2.5mm), water, and naphtha in a mixture that is to be contacted with the heavy oil (see Hettinger, column 7, lines 34-51, column 8, lines 15-32, and column 23, lines 42-45). Hettinger also discloses where the (water, naphtha, and catalyst)/feed ratio is between about 0.01 to 2.0 (where a bbl of feed is approximately 311 lbs of oil) (see Hettinger, column 21, Table E-1).

Hettinger does not disclose a catalyst composition having: about 15 to 35 wt% silicon dioxide, about 1 to 6 wt% aluminum oxide, about 5 to 20 wt% ferric oxide, about 10 to 30 wt% calcium oxide, at least about 2 wt% titanium dioxide, and at least about 8 wt% transition metal salt.

However, Senes discloses a catalyst composition containing 1-10 wt% of calcium oxide, 6-16 wt% of silicon dioxide, 0-40 wt% of aluminum oxide, 0-15 wt% of titanium oxide and a small amount of ferric oxide that is mixed with water (see Senes, column 2, lines 26-35 and 64-70 and claim 3).

Senes discloses that such a catalyst composition is gives good results in reforming heavy hydrocarbon oils (see Senes, column 2, lines 39-63).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify the composition of Hettinger to include a catalyst composition containing 1-10 wt% of calcium oxide, 6-16 wt% of silicon dioxide, 0-40 wt% of aluminum oxide, 0-15 wt% of titanium oxide and a small amount of ferric oxide that is mixed with water in order to have a catalyst composition that gives good results in reforming heavy hydrocarbon oils.

In addition, Leftin discloses a catalyst comprising about 1 to about 30 wt% of ferric halide or cupric halide (see Leftin, claim 9).

Leftin discloses that such a catalyst provides for an improved contact material for effecting conversion (see Leftin column 2, lines 12-30).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify the composition of Hettinger to include a catalyst comprising about 1 to about 30 wt% of ferric halide or cupric halide in order to provide for an improved contact material for effecting conversion.

Also, Schriesheim discloses a catalyst with 30 to 15 % ferric oxide (see Schriesheim, column 2, lines 6-8).

Schriesheim discloses that ferric oxide increases the isomerization activity of the catalyst (see Schriesheim, column 1, lines 56-61).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify the composition of Hettinger to include a catalyst with 30 to 15 % ferric oxide in order to increase the isomerization activity of the catalyst.

8. With respect to claims 69-75, Hettinger discloses a process of making a catalyst composition that contains catalyst particles under 200 microns (see Koeppel (US 4300324), which discloses that particles with a Blaine of 3000 have particle sizes of less than 2.5mm), water, and naphtha in a mixture (see Hettinger, column 7, lines 34-51, column 8, lines 15-32, and column 23, lines 42-45). Hettinger also discloses that the catalyst can be mixed with naphtha and water in a riser at atmospheric pressure before contact with the feed. Also, the temperature of mixing would be atmospheric if the catalyst mixture is mixed without regenerated catalyst and before contact with the feed or steam (see Hettinger, column 8, lines 15-32 and column 21, Table E-1).

Hettinger does not disclose where the catalyst composition has: about 15 to 35 wt% silicon dioxide, about 1 to 6 wt% aluminum oxide, about 5 to 20 wt% ferric oxide, about 10 to 30 wt% calcium oxide, at least about 2 wt% titanium dioxide, and at least about 8 wt% transition metal salt.

However, Senes discloses a catalyst composition containing 1-10 wt% of calcium oxide, 6-16 wt% of silicon dioxide, 0-40 wt% of aluminum oxide, 0-15 wt% of titanium oxide and a small amount of ferric oxide that is mixed with water (see Senes, column 2, lines 26-35 and 64-70 and claim 3).

Senes discloses that such a catalyst composition is gives good results in reforming heavy hydrocarbon oils (see Senes, column 2, lines 39-63).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify the process of Hettinger to include a catalyst composition containing 1-10 wt% of calcium oxide, 6-16 wt% of silicon dioxide, 0-40

wt% of aluminum oxide, 0-15 wt% of titanium oxide and a small amount of ferric oxide that is mixed with water in order to have a catalyst composition that gives good results in reforming heavy hydrocarbon oils.

In addition, Leftin discloses a catalyst comprising about 1 to about 30 wt% of ferric halide or cupric halide (see Leftin, claim 9).

Leftin discloses that such a catalyst provides for an improved contact material for effecting conversion (see Leftin column 2, lines 12-30).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify the process of Hettinger to include a catalyst comprising about 1 to about 30 wt% of ferric halide or cupric halide in order to provide for an improved contact material for effecting conversion.

Also, Schriesheim discloses a catalyst with 30 to 15 % ferric oxide (see Schriesheim, column 2, lines 6-8).

Schriesheim discloses that ferric oxide increases the isomerization activity of the catalyst (see Schriesheim, column 1, lines 56-61).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify the process of Hettinger to include a catalyst with 30 to 15 % ferric oxide in order to increase the isomerization activity of the catalyst.

9. Claims 85-87, 89-91, 93-95, and 97-99 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hettinger in view of Senes, Leftin, Schriesheim, and Mason (US 2497176).

10. With respect to claims 59-65, 67, and 68, Hettinger discloses a catalyst composition for converting heavy hydrocarbons. The catalyst composition contains catalyst particles under 200 microns (see Koeppel (US 4300324), which discloses that particles with a Blaine of 3000 have particle sizes of less than 2.5mm), water, and naphtha in a mixture that is to be contacted with the heavy oil (see Hettinger, column 7, lines 34-51, column 8, lines 15-32, and column 23, lines 42-45). Hettinger also discloses where the (water, naphtha, and catalyst)/feed ratio is between about 0.01 to 2.0 (where a bbl of feed is approximately 311 lbs of oil) (see Hettinger, column 21, Table E-1).

Hettinger does not disclose a catalyst composition having: 30-50 wt% Portland cement, 30-50 wt% pumice, at least about 2 wt% titanium dioxide, and at least about 8 wt% transition metal salt.

However, Senes discloses a catalyst composition containing, 0-15 wt% of titanium oxide and a small amount of ferric oxide that is mixed with water (see Senes, column 2, lines 26-35 and 64-70 and claim 3).

Senes discloses that such a catalyst composition is gives good results in reforming heavy hydrocarbon oils (see Senes, column 2, lines 39-63).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify the composition of Hettinger to include a catalyst composition containing 0-15 wt% of titanium oxide and a small amount of ferric oxide that is mixed with water in order to have a catalyst composition that gives good results in reforming heavy hydrocarbon oils.

Also, Mason discloses that metals may be supported on Portland cement and pumice (see Mason, column 2, lines 15-24).

Mason discloses that Portland cement and pumice are suitable carriers for catalysts useful in the hydrogenation of high molecular weight feedstocks (see Mason, column 2, lines 3-21).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify the composition of Hettinger to include that metals may be supported on Portland cement and pumice in order to have suitable carriers for catalysts useful in the hydrogenation of high molecular weight feedstocks.

In addition, Leftin discloses a catalyst comprising about 1 to about 30 wt% of ferric halide or cupric halide (see Leftin, claim 9).

Leftin discloses that such a catalyst provides for an improved contact material for effecting conversion (see Leftin column 2, lines 12-30).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify the composition of Hettinger to include a catalyst comprising about 1 to about 30 wt% of ferric halide or cupric halide in order to provide for an improved contact material for effecting conversion.

Also, Schriesheim discloses a catalyst with 30 to 15 % ferric oxide (see Schriesheim, column 2, lines 6-8).

Schriesheim discloses that ferric oxide increases the isomerization activity of the catalyst (see Schriesheim, column 1, lines 56-61).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify the composition of Hettinger to include a catalyst with 30 to 15 % ferric oxide in order to increase the isomerization activity of the catalyst.

11. With respect to claims 76-84, Hettinger discloses a process of making a catalyst composition that contains catalyst particles under 200 microns (see Koeppel (US 4300324), which discloses that particles with a Blaine of 3000 have particle sizes of less than 2.5mm), water, and naphtha in a mixture (see Hettinger, column 7, lines 34-51, column 8, lines 15-32, and column 23, lines 42-45). Hettinger also discloses that the catalyst can be mixed with naphtha and water in a riser at atmospheric pressure before contact with the feed. Also, the temperature of mixing would be atmospheric if the catalyst mixture is mixed without regenerated catalyst and before contact with the feed or steam (see Hettinger, column 8, lines 15-32 and column 21, Table E-1).

Hettinger does not disclose where the catalyst composition has: 30-50 wt% Portland cement, 30-50 wt% pumice, at least about 2 wt% titanium dioxide, and at least about 8 wt% transition metal salt.

However, Senes discloses a catalyst composition containing 0-15 wt% of titanium oxide and a small amount of ferric oxide that is mixed with water (see Senes, column 2, lines 26-35 and 64-70 and claim 3).

Senes discloses that such a catalyst composition is gives good results in reforming heavy hydrocarbon oils (see Senes, column 2, lines 39-63).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify the process of Hettinger to include a catalyst

composition containing 0-15 wt% of titanium oxide and a small amount of ferric oxide that is mixed with water in order to have a catalyst composition that gives good results in reforming heavy hydrocarbon oils.

Also, Mason discloses that metals may be supported on Portland cement and pumice (see Mason, column 2, lines 15-24).

Mason discloses that Portland cement and pumice are suitable carriers for catalysts useful in the hydrogenation of high molecular weight feedstocks (see Mason, column 2, lines 3-21).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify the process of Hettinger to include that metals may be supported on Portland cement and pumice in order to have suitable carriers for catalysts useful in the hydrogenation of high molecular weight feedstocks.

In addition, Leftin discloses a catalyst comprising about 1 to about 30 wt% of ferric halide or cupric halide (see Leftin, claim 9).

Leftin discloses that such a catalyst provides for an improved contact material for effecting conversion (see Leftin column 2, lines 12-30).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify the process of Hettinger to include a catalyst comprising about 1 to about 30 wt% of ferric halide or cupric halide in order to provide for an improved contact material for effecting conversion.

Also, Schriesheim discloses a catalyst with 30 to 15 % ferric oxide (see Schriesheim, column 2, lines 6-8).

Schriesheim discloses that ferric oxide increases the isomerization activity of the catalyst (see Schriesheim, column 1, lines 56-61).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify the process of Hettinger to include a catalyst with 30 to 15 % ferric oxide in order to increase the isomerization activity of the catalyst.

12. With respect to claims 85-87 and 89-91, Hettinger discloses a process for the cracking and hydrogenation of heavy hydrocarbons (see Hettinger, column 29, lines 28-63). The catalyst composition contains catalyst particles under 200 microns (see Koeppel (US 4300324), which discloses that particles with a Blaine of 3000 have particle sizes of less than 2.5mm), water, and naphtha in a mixture that is to be contacted with the heavy oil (see Hettinger, column 7, lines 34-51, column 8, lines 15-32, and column 23, lines 42-45). Hettinger also discloses where the (water, naphtha, and catalyst)/feed ratio is between about 0.01 to 2.0 (where a bbl of feed is approximately 311 lbs of oil) (see Hettinger, column 21, Table E-1).

Hettinger does not disclose a catalyst composition having: about 15 to 35 wt% silicon dioxide, about 1 to 6 wt% aluminum oxide, about 5 to 20 wt% ferric oxide, about 10 to 30 wt% calcium oxide, at least about 2 wt% titanium dioxide, and at least about 8 wt% transition metal salt.

However, Senes discloses a catalyst composition containing 1-10 wt% of calcium oxide, 6-16 wt% of silicon dioxide, 0-40 wt% of aluminum oxide, 0-15 wt% of titanium oxide and a small amount of ferric oxide that is mixed with water (see Senes, column 2, lines 26-35 and 64-70 and claim 3).

Senes discloses that such a catalyst composition is gives good results in reforming heavy hydrocarbon oils (see Senes, column 2, lines 39-63).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify the process of Hettinger to include a catalyst composition containing 1-10 wt% of calcium oxide, 6-16 wt% of silicon dioxide, 0-40 wt% of aluminum oxide, 0-15 wt% of titanium oxide and a small amount of ferric oxide that is mixed with water in order to have a catalyst composition that gives good results in reforming heavy hydrocarbon oils.

In addition, Leftin discloses a catalyst comprising about 1 to about 30 wt% of ferric halide or cupric halide (see Leftin, claim 9).

Leftin discloses that such a catalyst provides for an improved contact material for effecting conversion (see Leftin column 2, lines 12-30).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify the process of Hettinger to include a catalyst comprising about 1 to about 30 wt% of ferric halide or cupric halide in order to provide for an improved contact material for effecting conversion.

Also, Schriesheim discloses a catalyst with 30 to 15 % ferric oxide (see Schriesheim, column 2, lines 6-8).

Schriesheim discloses that ferric oxide increases the isomerization activity of the catalyst (see Schriesheim, column 1, lines 56-61).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify the process of Hettinger to include a catalyst with 30 to 15 % ferric oxide in order to increase the isomerization activity of the catalyst.

Also, Mason discloses that cracking increases the API of hydrocarbon oil (see Mason, column 3, lines 40-45 and column 4, lines 15-45).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify the process of Hettinger to include an increase in the API of the hydrocarbon feed because cracking causes an increase in the API of a hydrocarbon.

13. With respect to claims 93-95 and 97-99, Hettinger discloses a process for the cracking and hydrogenation of heavy hydrocarbons (see Hettinger, column 29, lines 28-63). The catalyst composition contains catalyst particles under 200 microns (see Koeppel (US 4300324), which discloses that particles with a Blaine of 3000 have particle sizes of less than 2.5mm), water, and naphtha in a mixture that is to be contacted with the heavy oil (see Hettinger, column 7, lines 34-51, column 8, lines 15-32, and column 23, lines 42-45). Hettinger also discloses where the (water, naphtha, and catalyst)/feed ratio is between about 0.01 to 2.0 (where a bbl of feed is approximately 311 lbs of oil) (see Hettinger, column 21, Table E-1).

Hettinger does not disclose a catalyst composition having: 30-50 wt% Portland cement, 30-50 wt% pumice, at least about 2 wt% titanium dioxide, and at least about 8 wt% transition metal salt.

However, Senes discloses a catalyst composition containing 0-15 wt% of titanium oxide and a small amount of ferric oxide that is mixed with water (see Senes, column 2, lines 26-35 and 64-70 and claim 3).

Senes discloses that such a catalyst composition is gives good results in reforming heavy hydrocarbon oils (see Senes, column 2, lines 39-63).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify the process of Hettinger to include a catalyst composition containing 0-15 wt% of titanium oxide and a small amount of ferric oxide that is mixed with water in order to have a catalyst composition that gives good results in reforming heavy hydrocarbon oils.

In addition, Leftin discloses a catalyst comprising about 1 to about 30 wt% of ferric halide or cupric halide (see Leftin, claim 9).

Leftin discloses that such a catalyst provides for an improved contact material for effecting conversion (see Leftin column 2, lines 12-30).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify the process of Hettinger to include a catalyst comprising about 1 to about 30 wt% of ferric halide or cupric halide in order to provide for an improved contact material for effecting conversion.

Also, Schriesheim discloses a catalyst with 30 to 15 % ferric oxide (see Schriesheim, column 2, lines 6-8).

Schriesheim discloses that ferric oxide increases the isomerization activity of the catalyst (see Schriesheim, column 1, lines 56-61).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify the process of Hettinger to include a catalyst with 30 to 15 % ferric oxide in order to increase the isomerization activity of the catalyst.

Also, Mason discloses that metals may be supported on Portland cement and pumice (see Mason, column 2, lines 15-24).

Mason discloses that Portland cement and pumice are suitable carriers for catalysts useful in the hydrogenation of high molecular weight feedstocks (see Mason, column 2, lines 3-21).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify the composition of Hettinger to include that metals may be supported on Portland cement and pumice in order to have suitable carriers for catalysts useful in the hydrogenation of high molecular weight feedstocks.

In addition, Mason discloses that cracking increases the API of hydrocarbon oil (see Mason, column 3, lines 40-45 and column 4, lines 15-45).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify the process of Hettinger to include an increase in the API of the hydrocarbon feed because cracking causes an increase in the API of a hydrocarbon.

Allowable Subject Matter

14. Claims 66, 88, 92, 96, and 100 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

15. The following is a statement of reasons for the indication of allowable subject matter: the prior art does not teach nor disclose: a cracking/hydrogenation catalyst containing scoria and cracking conducted at ambient temperature and ambient pressure.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John C. Douglas whose telephone number is 571-272-1087. The examiner can normally be reached on 7:30 A.M. to 4:30 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn A. Caldarola can be reached on 571-272-1444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JCD

8/19/2006

Glenn Caldarola
Supervisory Patent Examiner
Technology Center 1700